



PATENT
450117-02372

#961
7.17-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Besma Kraiem
Serial No. : 09/482,769
For : QUASI-DIFFERENTIAL MODULATION/DEMODULATION
METHOD FOR MULTI-AMPLITUDE DIGITAL
MODULATED SIGNALS AND OFDM SYSTEM
Filed : January 13, 2000
Examiner : Guillermo Munoz
Art Unit : 2634

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New York, NY 10151
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2003

Glenn F. Savit, Reg. No. 37,437

Name of Applicant, Assignee or Registered Representative

Signature

July 9, 2003

Date of Signature

SUBMISSION OF FORMAL DRAWINGS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attention: Official Draftsperson

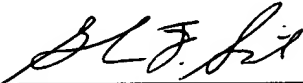
Dear Sir:

Enclosed for filing in the above-referenced patent application are fourteen (14)
sheets of formal drawings to be made of record in the present application in place of the original

drawings and which avoid the objections stated in PTO Form 948 attached to Paper No. 8.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP
Attorneys for Applicants

By 
Glenn F. Savit
Reg. No. 37,437
(212) 588-0800

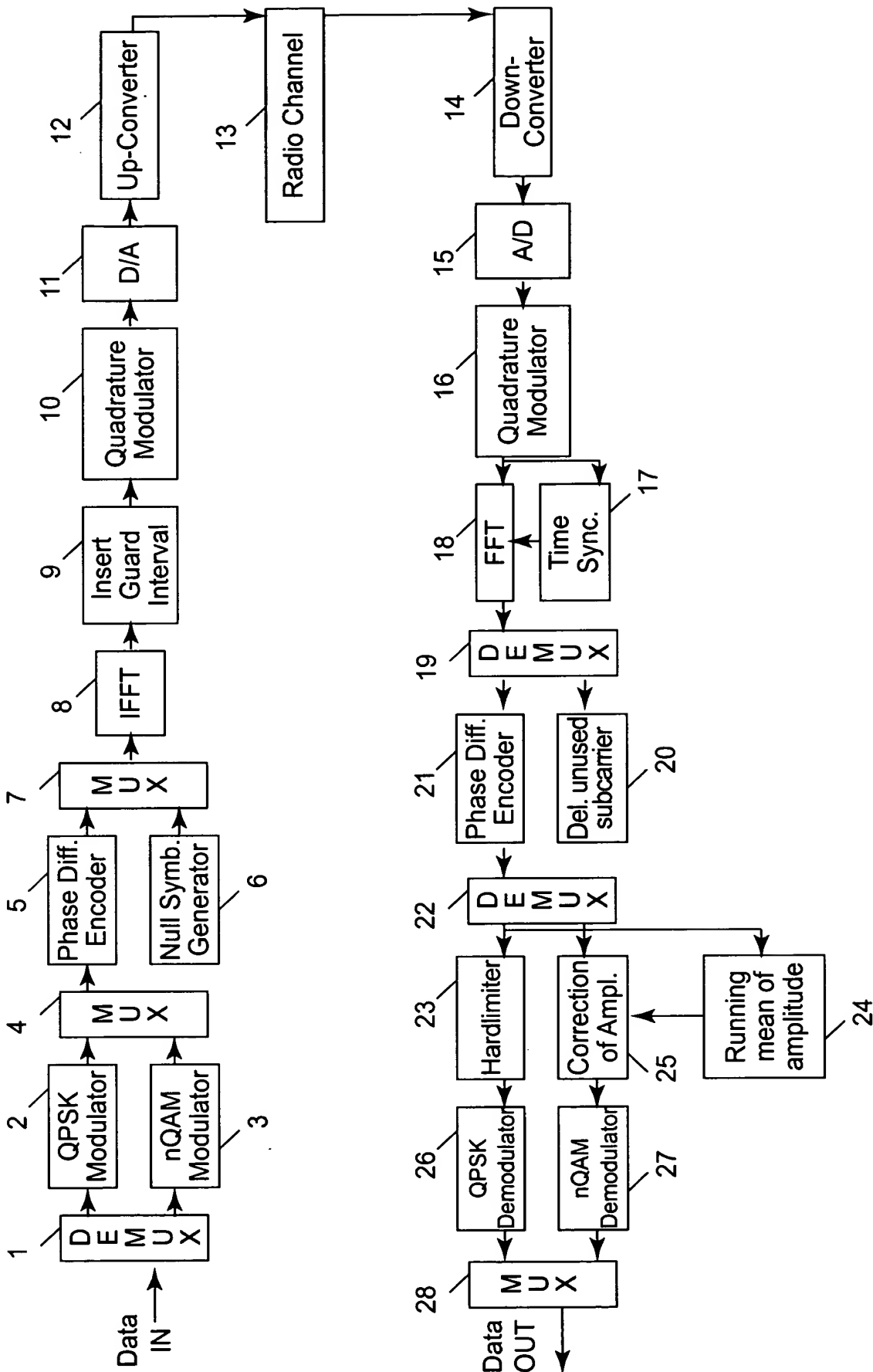


FIG. 1

Inventor: Besma Kraiem
 Title: QUASI-DIFFERENTIAL
 MODULATION/DEMODULATION
 METHOD FOR MULTI-AMPLITUDE DIGITAL MODULATED
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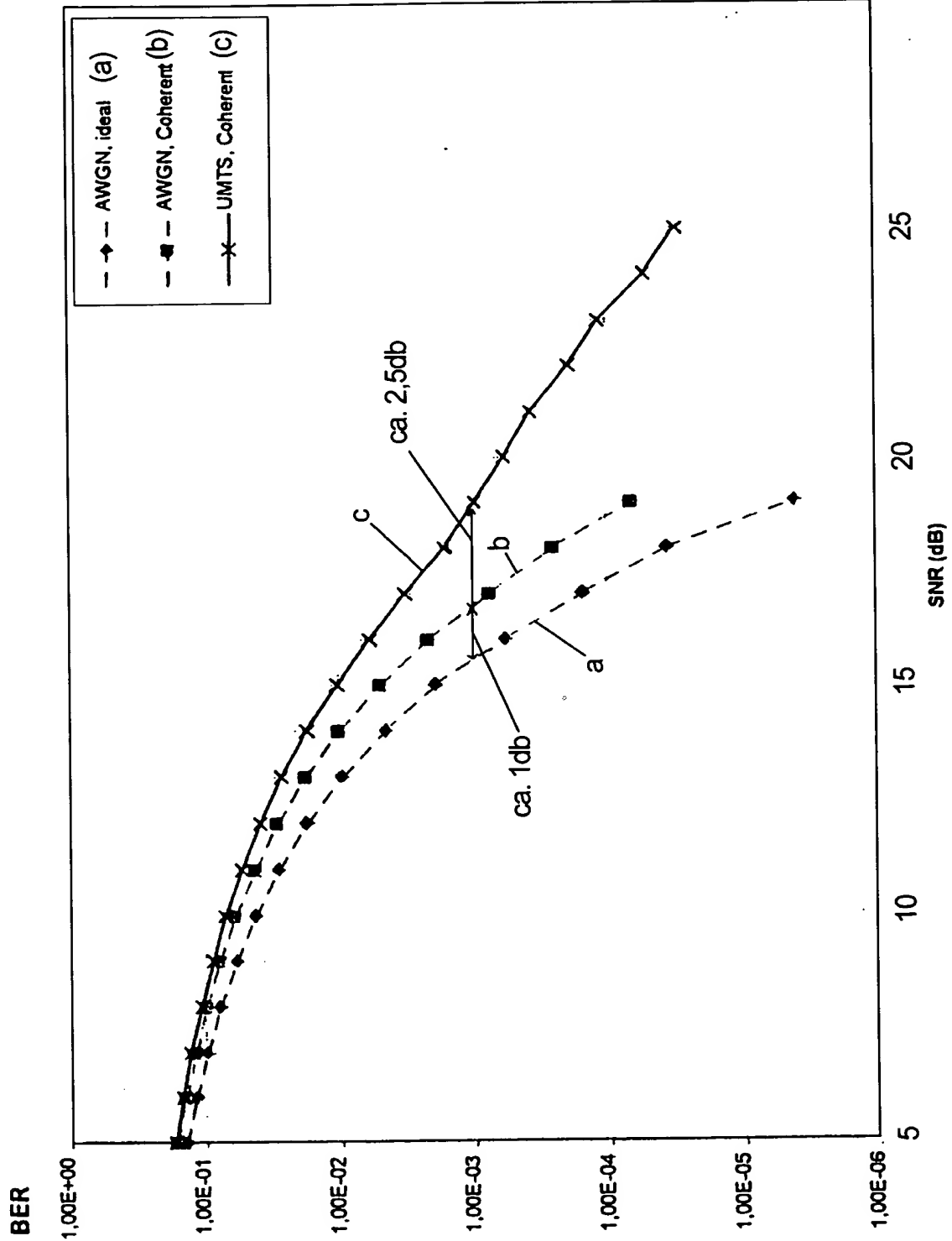
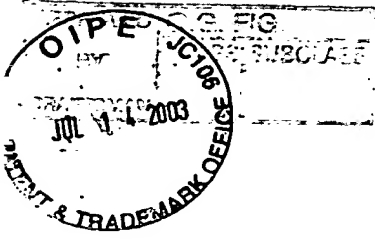
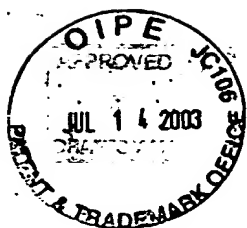

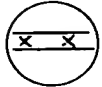


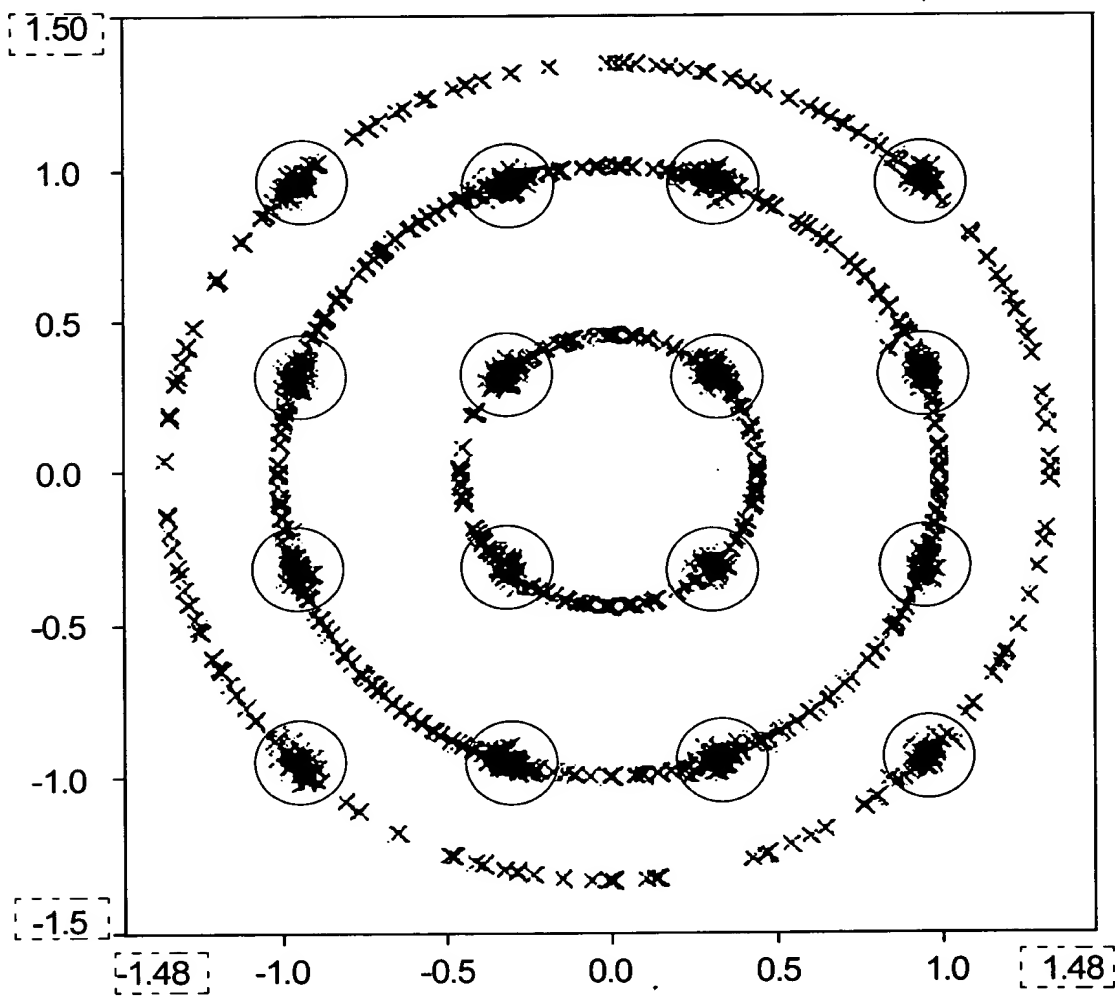
FIG. 2



Inventor: Besma Kraiem
Title: QUASI-DIFFERENTIAL
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 16QAM Symbols
 16QAM Symbols after
Differential Encoding

16QAM Signal before and after Diff. Encoding
Q-Values



I-Values

FIG. 3

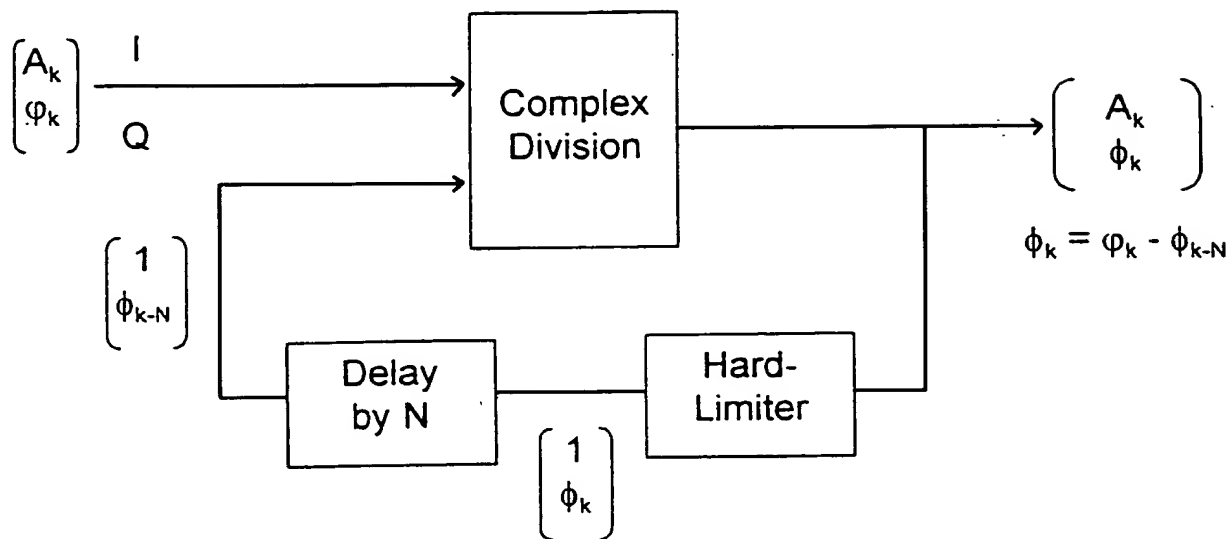
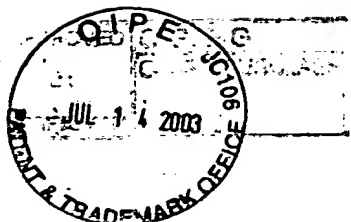


FIG. 4

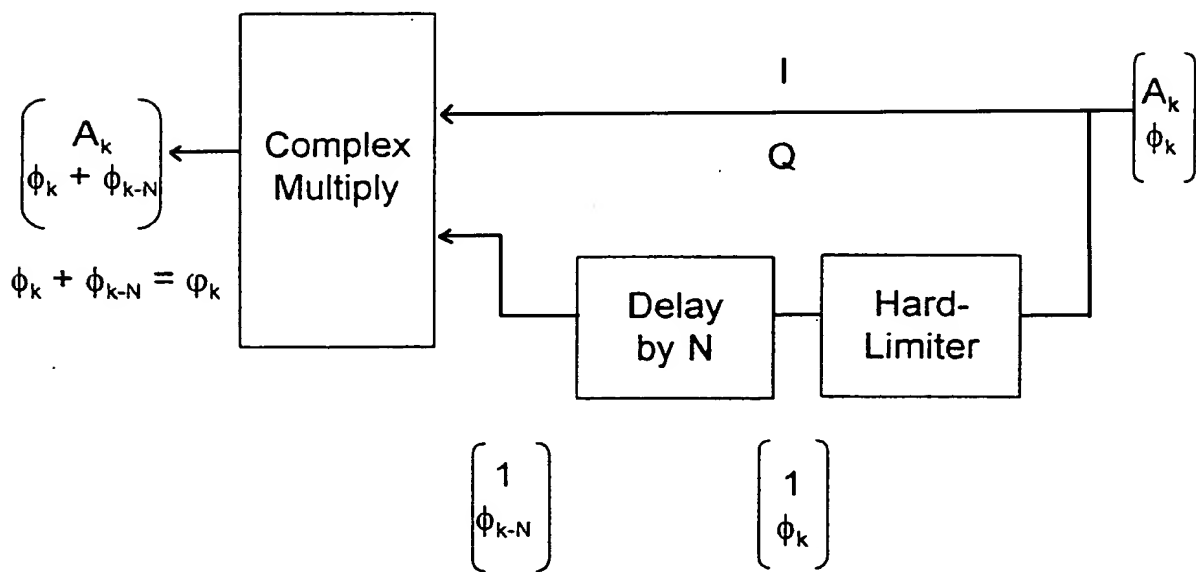
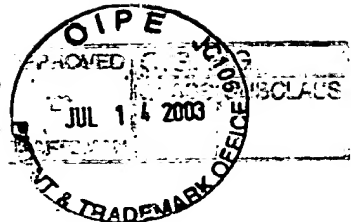


FIG. 5



Inventor: Besma Kraiem
Title: CO-SI-DIFFERENTIAL
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METHOD FOR MULTI-AMPLITUDE DIGITAL MODULATED
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Serial No. 09/482,769

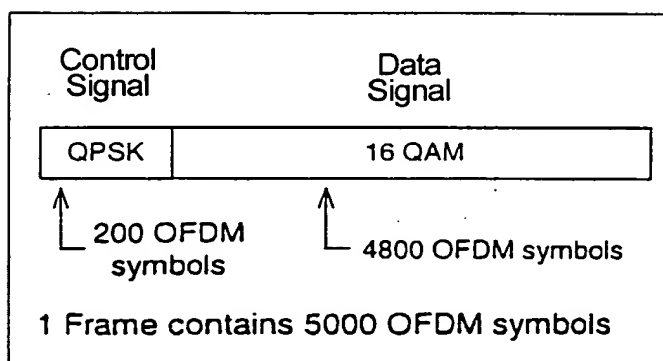


FIG. 6

Inventor: Besma Kraiem
Title: QUASI-DIFFERENTIAL
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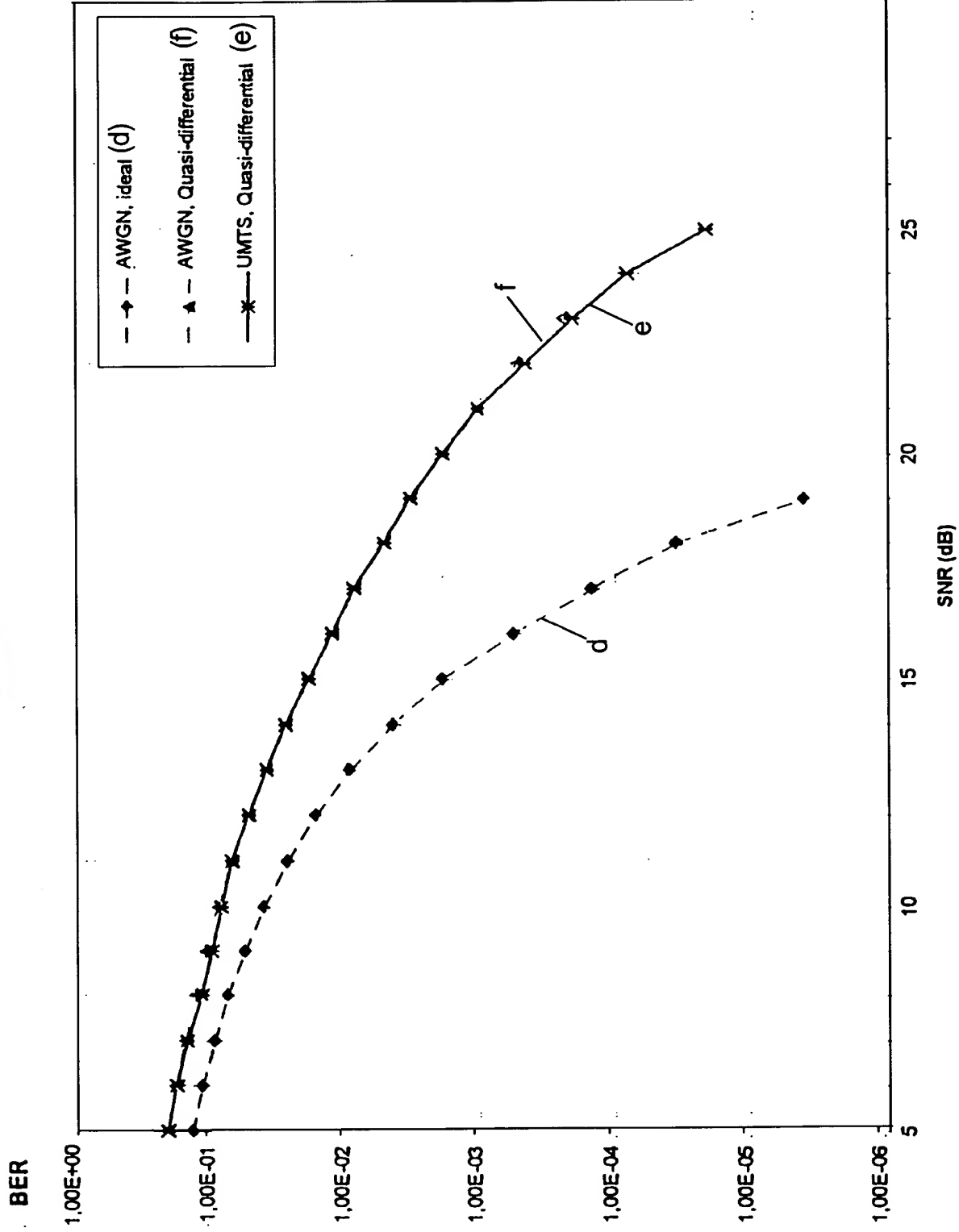


FIG. 7



Inventor: Besma Kraiem
Title: QUASI-DIFFERENTIAL
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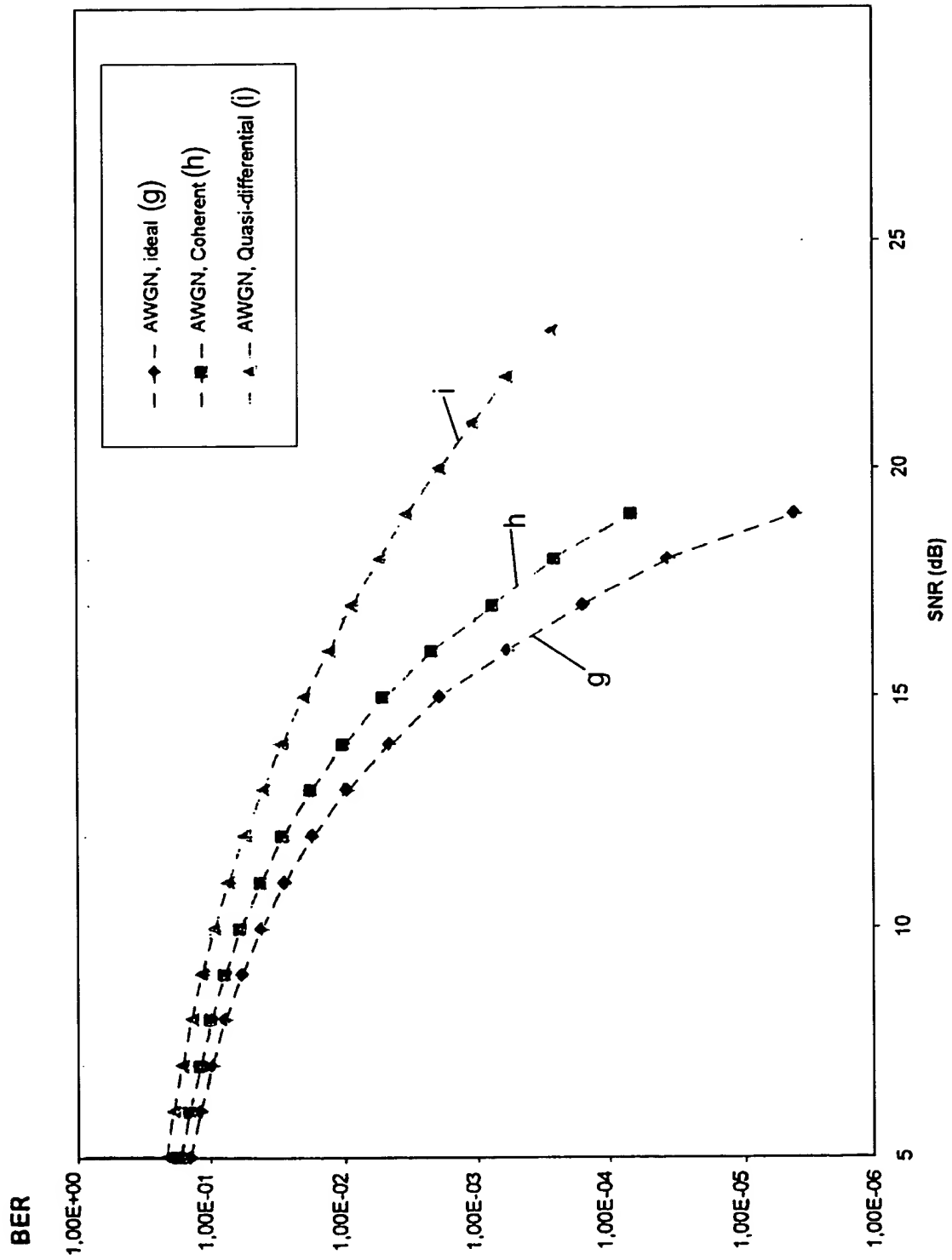


FIG. 8

Inventor: Besma Kraiem
 Title: QUASI-DIFFERENTIAL
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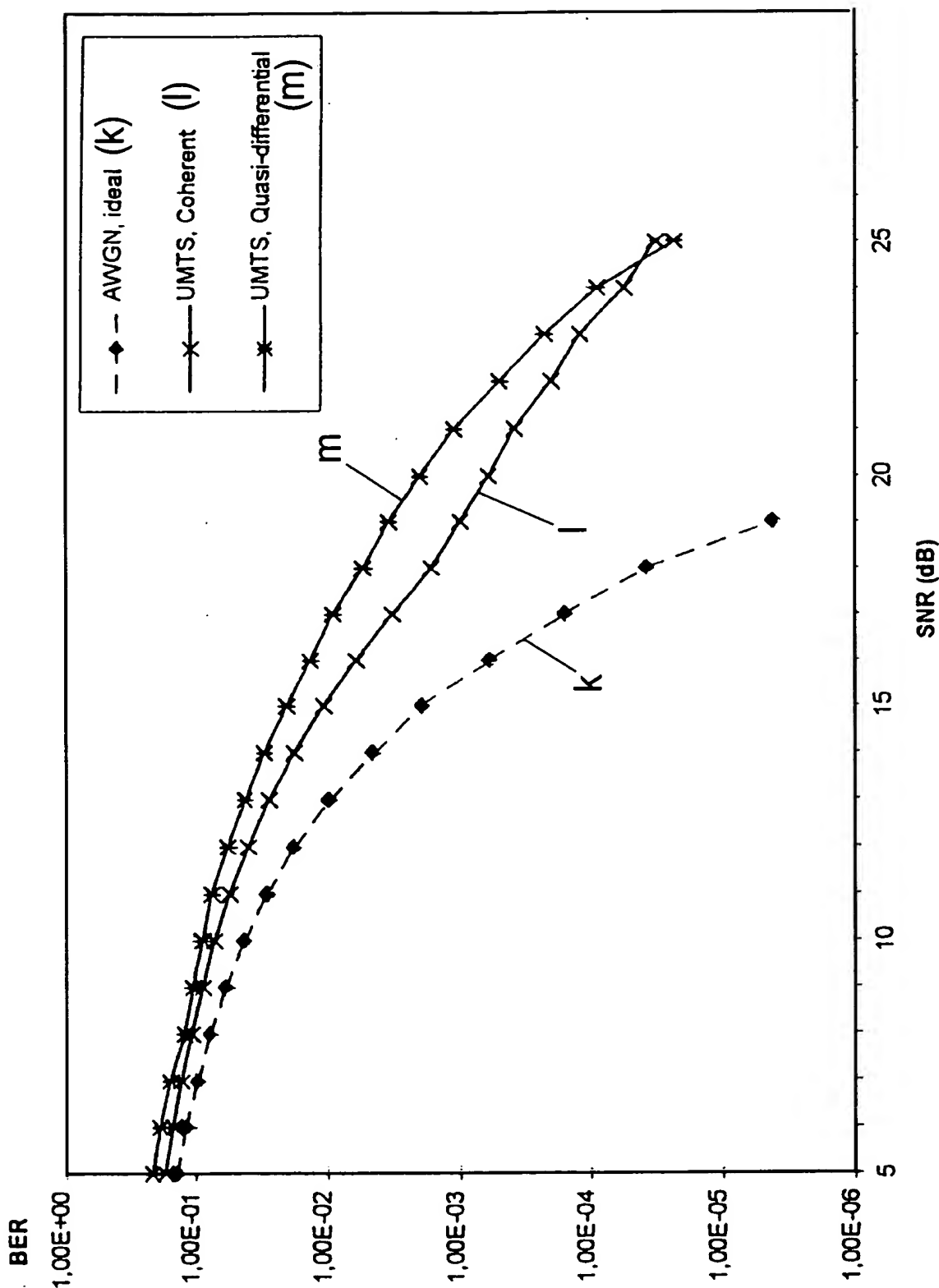
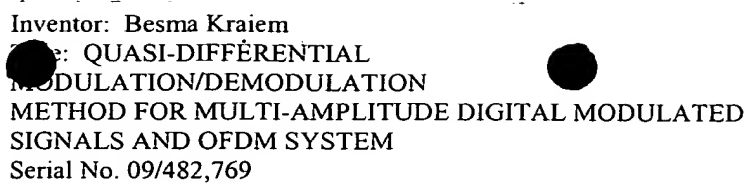


FIG. 9



Q-Values

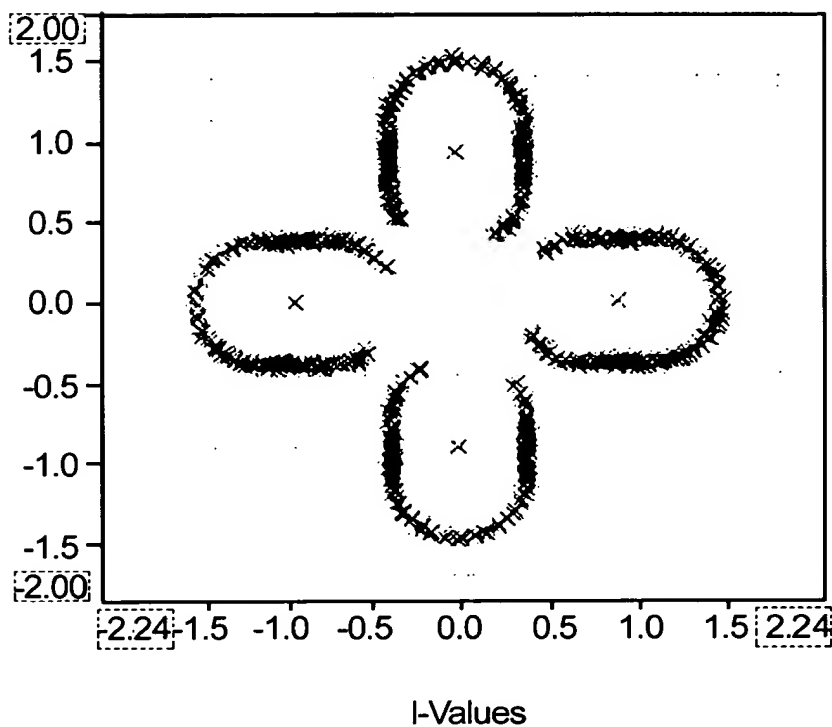
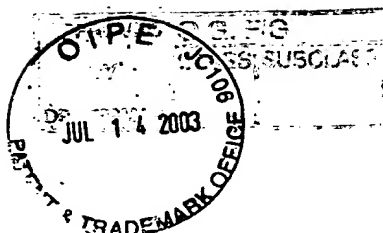


FIG. 10A



Inventor: Besma Kraiem
Title: QUASI-DIFFERENTIAL
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METHOD FOR MULTI-AMPLITUDE DIGITAL MODULATED
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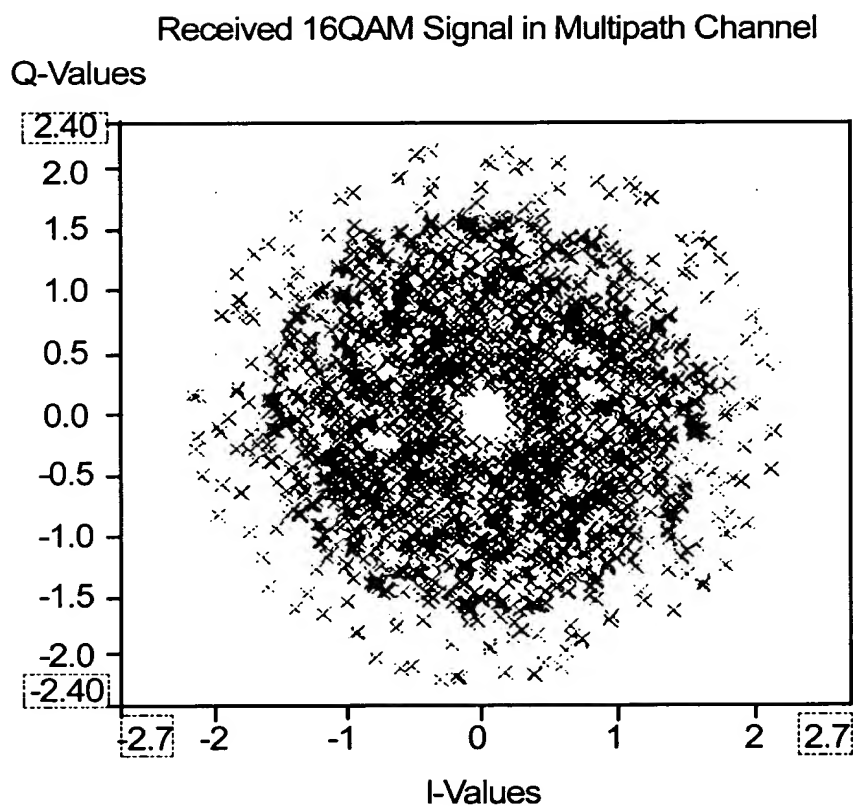


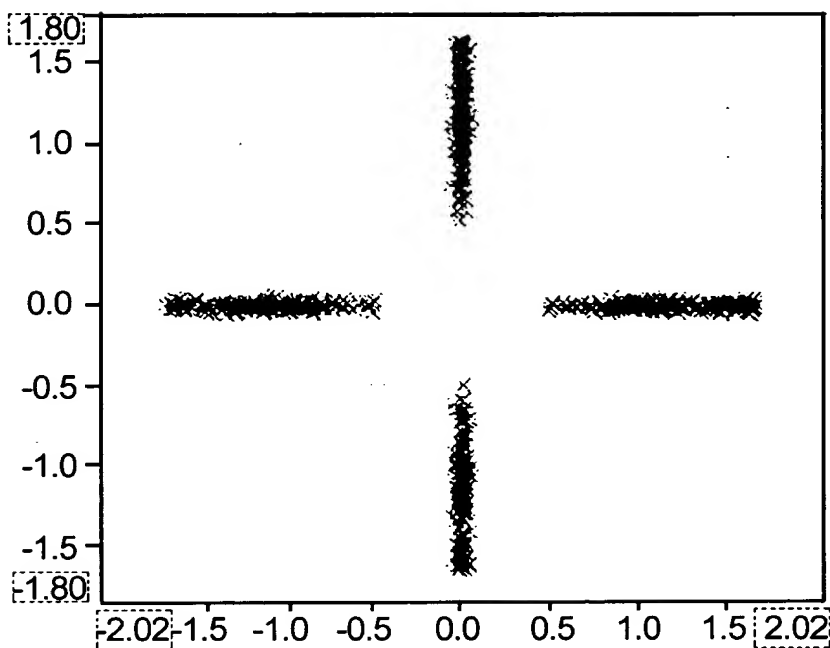
FIG. 10B



Inventor: Bisma Kraiem
TITLE: QUASI-DIFFERENTIAL
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METHOD FOR MULTI-AMPLITUDE DIGITAL MODULATED
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Received QPSK Signal after Diff. Phase Decoding

Q-Values



I-Values

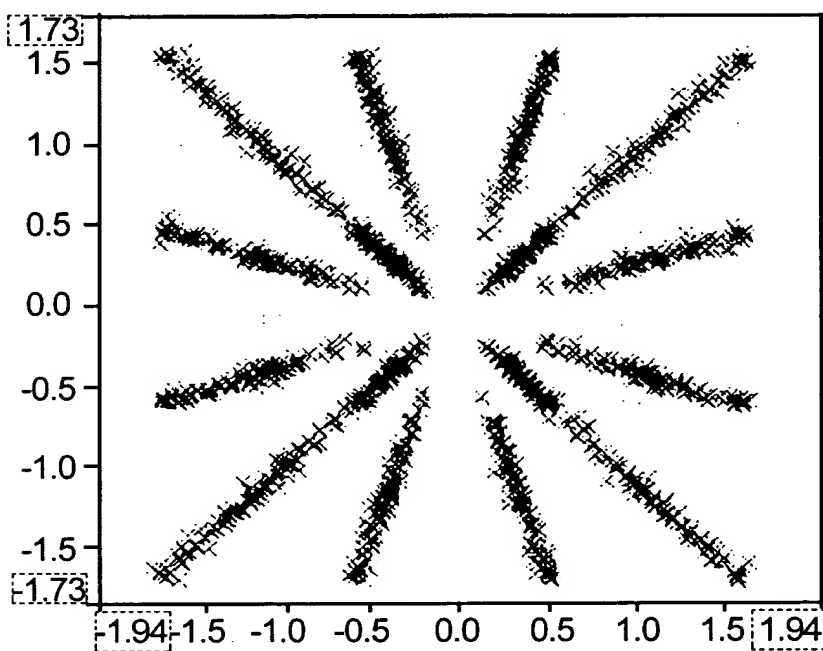
FIG. 10C



Inventor: Besma Kraiem
Title: QUASI-DIFFERENTIAL
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METHOD FOR MULTI-AMPLITUDE DIGITAL MODULATED
SIGNALS AND OFDM SYSTEM
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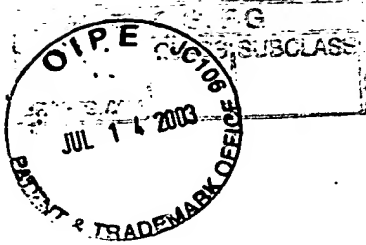
Received 16QAM Signal after Diff. Phase Decoding

Q-Values



I-Values

FIG. 10D



Inventor: Besma Kraiem
CLASS: QUASI-DIFFERENTIAL
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METHOD FOR MULTI-AMPLITUDE DIGITAL MODULATED
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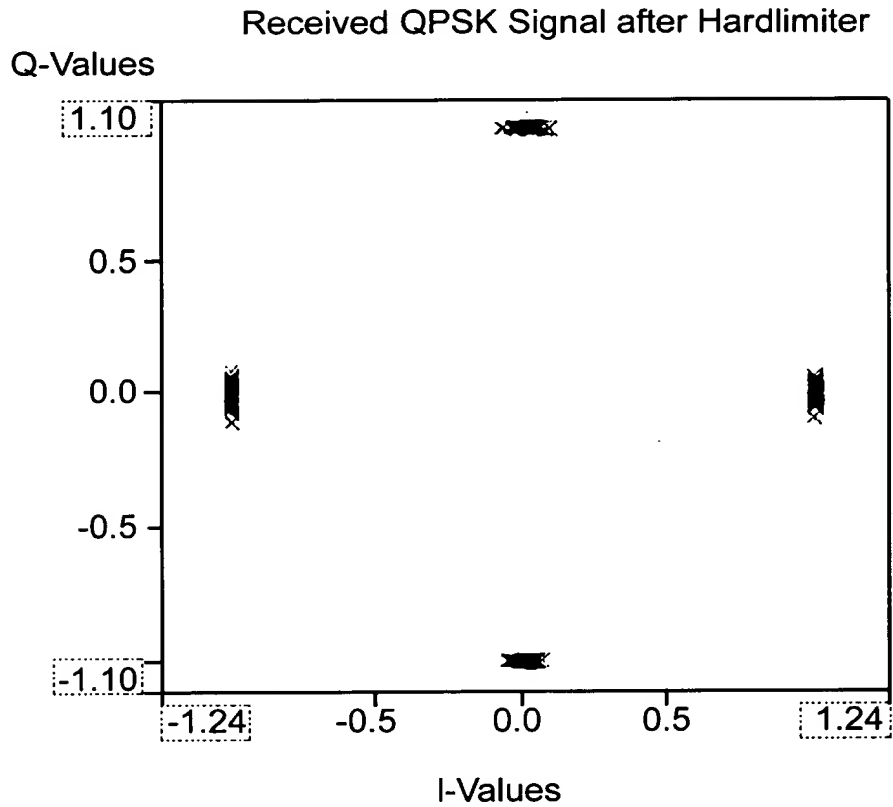
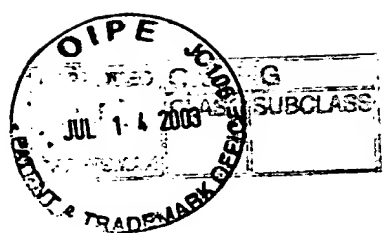


FIG. 10E



Inventor: Besma Kraiem
TITLE: QUASI-DIFFERENTIAL
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METHOD FOR MULTI-AMPLITUDE DIGITAL MODULATED
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Received 16QAM Signal after amplitude correction
Q-Values

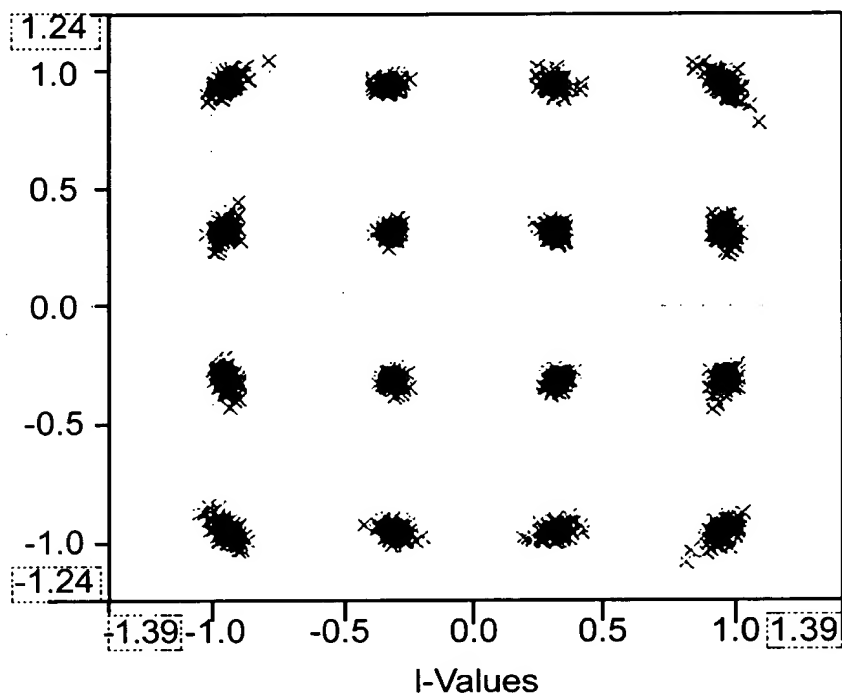


FIG. 10F